30. *Third*, it is difficult to develop a tariffed offering that appropriately limits the availability of that offering to similarly situated customers. In one fairly recent situation, a significant wholesale customer sought a price below CenturyTel's tariffed rate. Because CenturyTel lacks any pricing flexibility, it was unable to meet the customer's request without lowering the rate for all customers by modifying the tariff. While Embarq possesses pricing flexibility in some areas, that flexibility is limited to certain geographic areas and is therefore incompatible with the national or regional arrangements sought by many enterprise broadband customers.

IV. Benefits of Proposed Forbearance

31. Over the past five years, CenturyLink has used its existing forbearance from dominant carrier regulation to benefit purchasers of its enterprise broadband services. During that time, legacy Qwest and Embarq have entered into 312 commercial agreements with a wide range of enterprise broadband purchasers. Because these agreements are individually negotiated, they have been tailored to a particular customer's specifications. Aside from differing rates and pricing structures, some of these agreements have included different term lengths, service level agreements and product configurations from those that had been in CenturyLink's tariffs.

32. Forbearance has also resulted in lower prices for the enterprise broadband services covered by these commercial agreements, by eliminating the pricing umbrella of tariffed prices and giving CenturyLink the flexibility to meet competitors' promotional offerings. As reflected in these agreements, the average rates for CenturyLink services covered by the *Enterprise Broadband Forbearance Orders* have declined by **[BEGIN CONFIDENTIAL]** ■ **[END CONFIDENTIAL]** percent since

they were detariffed in 2007 and 2008. The prices for some individual services have dropped even further. For example, the average price paid for Embarq's Ethernet-based EPL service has declined by **[BEGIN CONFIDENTIAL]** ■ **[END CONFIDENTIAL]** percent since 2007.

33. The requested forbearance will further benefit customers. With its enterprise broadband services uniformly regulated as nondominant services, CenturyLink will be able to develop company-wide offerings at uniform rates, terms and conditions, as demanded by customers. CenturyLink also will be more aggressive in attempting to match and beat competitors' promotional offerings on a transaction-by-transaction basis—resulting in lower prices and more satisfied customers.

/s/ Julie Brown
Julie Brown

December 4, 2013

Attachment 8

REDACTED – FOR PUBLIC INSPECTION

(Confidential Document Omitted In Its Entirety)

Attachment 9

Attachment 9

National and Regional Providers of Enterprise Broadband Services

American Telesis. American Telesis "is a wide area networks solutions provider with specialized products now ranging from dedicated internet access and private lines to remote network monitoring and automated failover services."[1] It can provide Ethernet Private Line service "at speeds ranging from 1.5Mb to 10Gb, from New England to California or anywhere in between."[2] These services "are not limited to fiber lit buildings, but instead can be delivered over existing copper facilities, opening up the networking possibilities at all customer sites."[3]

AT&T. AT&T is one of the leading worldwide providers of IP-based communications services to businesses.[4] "AT&T Business Solutions serves over 3.5 million business customers — ranging from the largest global companies to medium and small businesses."[5] It serves all of the Fortune 1000 companies.[6] AT&T is also a global leader in providing wholesale services to carriers, wireless service providers, cable providers, system integrators, Internet service providers and content providers.[7]

Bright House. Bright House Networks offers a variety of facilities-based enterprise broadband services, including Metro Ethernet services, with connection speeds up to 10 Gbps, as well as Managed VPN.[8] Bright House is the sixth largest owner and operator of cable systems in the U.S.[9]

BT. BT is an established global communications company serving customers in more than 170 countries.[10] It owns and operates its own network infrastructure in North America, including a nation-wide reach to all major U.S. cities.[11] BT's Ethernet Connect services are available to 44

[1] American Telesis website, available at http://www.american-telesis.net/about/.
[2] American Telesis website, available at http://www.american-telesis.net/ethernet-private-line-services/.
[3] American Telesis website, available at http://www.american-telesis.net/ethernet-private-line-services/.
[4] AT&T website, available at http://www.att.com/gen/investor-relations?pid=5711.
[5] AT&T website, available at http://www.att.com/gen/press-room?pid=21436.
[6] AT&T website, available at http://www.att.com/gen/press-room?pid=21436.
[7] AT&T website, available at http://www.att.com/gen/investor-relations?pid=5711.
[8] Bright House website, available at http://business.brighthouse.com/products-and-services/data-and-internet/dedicated-internet-access.html;http://business.brighthouse.com/products-and-services/data-and-internet/metro-ethernet.html; http://business.brighthouse.com/products-and-services/data-and-internet/managed-vpn.html.
[9] Bright House website, available at http://brighthouse.com/corporate/about/service-areas.
[10] BT website, available at http://www.btplc.com/thegroup/.
[11] BT website, available at http://www.globalservices.bt.com/us/en/location/united_states.

countries, including the U.S.[12] BT serves around 7,000 corporate and public sector customers, including 74 percent of the Fortune 500.[13]

Charter. Charter Communications is the fourth-largest cable operator in the United States, serving approximately 5.7 million customers in 29 states.[14] It also provides a variety of enterprise broadband services. Charter Business Fiber Internet offers businesses "symmetrical access service with speeds from 2 Mbps up to 1 Gbps, with the ability to scale in increments of as little as 1 Mbps." Delivered via a direct fiber-optic connection, this Ethernet-based service can seamlessly interface with the customer's office local area network.[15] Charter's Data Networking services connect multiple locations with options for point-to-point, point-to-multipoint or hub-and-spoke connections through a redundant, reliable network, with speeds ranging from 10 Mbps to 10 Gbps.[16]

Cogent. Cogent Communications is a multinational Tier 1 Internet Service Provider with over 57,000 route miles of intercity fiber and more than 27,100 metro fiber miles, providing service to over 180 major markets and interconnecting with over 4,660 other networks.[17] Its enterprise broadband services include IP Transit and Ethernet Point to Point, at speeds up to 2 Gbps.[18]

Comcast. Comcast's "vast and growing footprint spans 29 regional networks in 39 states...."[19] "With over 145,000 national route miles of fiber optic cables, Comcast['s] network is the largest 40G capable backbone, and is the largest facilities-based last mile alternative to the phone company."[20] Examples of Comcast's enterprise broadband services include Ethernet Private Line, Ethernet Virtual Private Line (EVPL) and Ethernet Dedicated Internet services, with speeds ranging from 1 Mbps to 10 Gbps.[21]

Cox. Cox Communications is the third largest cable and broadband provider in the nation with about 6 million customers.[22] Cox Business provides voice, data and video services to more than 300,000 business customers in industries ranging from healthcare and hospitality to government

[12] BT website, available at http://www.globalservices.bt.com/us/en/products/ethernet_connect.
[13] BT, available at http://www.globalservices.bt.com/us/en/location/united_states.
[14] Charter website, available at http://www.charter.com/about.
[15] Charter website, available at http://www.charterbusiness.com/fiber-internet.aspx?type=ps
[16] Charter website, available at http://www.charterbusiness.com/data-networking.aspx.
[17] Cogent website, available at http://www.cogentco.com/en/about-cogent.
[18] Cogent website, available at http://www.cogentco.com/en/products-and-services; http://www.cogentco.com/files/docs/network/ethernet/brochure_ethernet.pdf.
[19] Comcast website, available at http://business.comcast.com/enterprise/about-us/our-network.
[20] Comcast website, available at http://business.comcast.com/enterprise/services/data.
[21] Comcast website, available at http://business.comcast.com/enterprise/services/data.
[22] Cox website, available at http://cox.mediaroom.com/index.php?s=18 .

and education.[23] Its enterprise broadband services include Metro Ethernet and Private Line services.[24]

DukeNet. DukeNet Communications is "a leading regional telecommunications services provider, offering robust fiber network solutions for data centers, wireless, carriers, government, healthcare, manufacturing, finance, education and enterprise" operating primarily in the southeastern U.S.[25] DukeNet controls more than 8,000 miles of fiber optic network and offers a range of solutions to meet wholesale and enterprise customers' network needs.[26] Its Ethernet service is available from 10 Mbps to 100 Gbps.[27]

EarthLink. EarthLink, Inc. "operates an extensive network including 29,421 route fiber miles, with 90 metro fiber rings and 8 secure data centers providing ubiquitous nationwide data and voice IP service coverage across more than 90 percent of the country."[28] EarthLink Business provides communications solutions to over 150,000 business customers, with specialized applications for many industries, including retail, healthcare, transportation, financial institutions and governments.[29] Its MPLS over Ethernet service works as a reliable backbone for large networks with substantial traffic demands, and its Private Line service offers high-speed connections, including OCn.[30]

Edison. Edison Carrier Solutions, a business unit of Southern California Edison, is a CLEC focused on the wholesale carrier and large business market, offering high capacity services at DS3 and above.[31] Its services include SONET, Managed Wavelength, Dark Fiber and Cell Site Backhaul.[32] It has one of the largest competitive carrier fiber-optic networks in Southern California.[33]

[23] Cox Press Release, *Cox Business Ranks Highest in J.D. Power's 2013 U.S. Business Wireline Satisfaction Study* (June 24, 2013) available at http://cox.mediaroom.com/index.php?s=43&item=682.
[24] Cox website, available at http://ww2.cox.com/business/arizona/networking.cox.
[25] DukeNet website, available at http://dukenet.com/about-dukenet.aspx. On October 7, 2013, Time Warner Cable announced its intention to acquire DukeNet Communications. DukeNet website, available at http://dukenet.com/about-dukenet.aspx#news-and-events.
[26] DukeNet website, available at http://dukenet.com/about-dukenet.aspx#our-network, http://dukenet.com/products-services.aspx.
[27] DukeNet website, available at http://dukenet.com/products-services.aspx.
[28] EarthLink website, available at http://www.earthlink.net/about/corp/.
[29] EarthLink website, available at http://www.earthlinkbusiness.com/solutions/enterprise.xea.
[30] EarthLink website, available at http://www.earthlinkbusiness.com/products/mpls.xea.
[31] Edison Carrier Solutions website, available at http://www.edisonconnect.com/home/default.asp.
[32] Edison Carrier Solutions website, available at http://www.edisoncarriersolutions.com/wireline.asp.
[33] Edison Carrier Solutions website, available at http://www.edisonconnect.com/aboutus/default.asp.

FiberLight. FiberLight is a provider of networking services including Ethernet, Wavelengths and IP, SONET and Dark Fiber optical transport network solutions.[34] FiberLight "wholly owns its 500,000 fiber-mile network in key growth areas and offers robust metro networks in 23 metros within Georgia, Florida, Washington, D.C., Texas, Virginia and Maryland."[35] It offers "best in breed Carrier Ethernet technology on a $1 billion diversely constructed optical ring topology network[.]"[36]

FiberTech. FiberTech Networks is "a leading provider of metro dark fiber and fiber-based transport services in mid-size cities throughout the eastern and central United States."[37] The company "is at the forefront of building and operating state-of-the-art fiber optic networks that connect local telco central offices, carrier hotels, data centers, office parks and other high traffic locations."[38] The company has core network operations in more than 24 cities. It serves "a number of U.S. long distance providers and regional CLECs" as well as "*Fortune 500* companies, nationally recognized colleges and universities, major health care facilities, state and local government agencies, and K through 12 school districts."[39] FiberTech's enterprise solutions include private line services up to OC-192 in capacity and Ethernet from 3 Mbps to 10 Gbps.[40]

FPL FiberNet. FPL FiberNet, a subsidiary of NextEra Energy, Inc., "delivers telecommunication services on its independently owned and operated fiber-optic network throughout most major metropolitan areas in Florida and Texas with additional long haul connectivity throughout the United States."[41] With approximately 9,000 miles of fiber, FPL FiberNet offers broadband services, which include Ethernet transport, Dedicated Internet Access, and SONET and SDH transport.[42]

Frontier. Frontier Communications is the nation's largest communications services provider focused on rural areas and small and medium-sized towns and cities in 27 states, and the nation's fourth largest Incumbent Local Exchange Carrier (ILEC), with approximately 3.2 million customers and 1.8 million broadband connections.[43] Frontier's commercial and carrier services

[34] FiberLight website, available at http://www.fiberlight.com/.
[35] FiberLight Press Release, *FiberLight Completes another Critical Milestone in Texas with its new Long Haul* (April 24, 2013), available at http://www.fiberlight.com/fiberlight-completes-another-critical-milestone-in-texas-with-its-new-long-haul/.
[36] FiberLight website, available at http://www.fiberlight.com/.
[37] FiberTech website, available at http://www.fibertech.com/docs/fibertech_ataglance.pdf.
[38] FiberTech website, available at http://www.fibertech.com/docs/fibertech_ataglance.pdf.
[39] FiberTech website, available at http://www.fibertech.com/docs/fibertech_ataglance.pdf.
[40] FiberTech website, available at http://www.fibertech.com/enterprise/.
[41] FPL FiberNet website, available at http://www.fplfibernet.com/about/contents/index.shtml;.
[42] FPL FiberNet website, available at http://www.fplfibernet.com/advantages/customized-solutions.shtml.
[43] Frontier Form 10K for the year ended December 31, 2012, available at http://files.shareholder.com/downloads/AMDA-OJWDG/2751942939x0x648130/7DFF9FC0-D2EC-46E1-A01E-AFC315AD10DE/FTR_annual_report.pdf at 2-3 (Frontier 2012 10K).

include Ethernet, Dedicated Internet, Multiprotocol Label Switching (MPLS), and TDM data transport services.[44]

Integra. Integra Telecom is "one of the largest facilities-based providers of communication and networking services in the western United States."[45] The company "owns and operates an enterprise-class network consisting of a 5,000-mile long-haul fiber network, 3,000-miles of metropolitan fiber and a nationwide IP/MPLS network."[46] Integra's carrier class service provides services "ranging from Ethernet to ultra-high capacity Private Lines."[47] Its services include Business Connect Ethernet Bundles, which feature Ethernet data services with 1.5 Mbps to 30 Mbps of symmetrical upstream and downstream bandwidth, as well as various private networking services with bandwidth up to 10 Gbps.[48]

Level 3. Level 3 is a facility-based provider of a broad range of integrated communications services, including Ethernet Virtual Private Networks, broadband transport services, wavelengths and private line services, provided to a wide range of wholesale and enterprise customers.[49] Level 3's Tower Access services provide the capability to provide carrier-neutral towers on or near existing network facilities to enable wireless providers to expand their wireless networks "without the expense of costly fiber builds or dedicated tower access."[50] Level 3 has metropolitan fiber networks in approximately 170 markets in North America, Europe and Latin America, with approximately 34,600 route miles.[51]

Lightower. Lightower Fiber Networks "is the premier all-fiber provider of custom, high-capacity network services[.]"[52] It offers "network services to over 7,500 service locations with more than 20,000 route miles of network, including fiber assets in the Northeast, Mid-Atlantic, and Chicago metro area as well as critical landing stations and exchanges internationally."[53] Lightower's services include Ethernet, Dark Fiber, Wavelengths and SONET.[54]

Lightpath. Lightpath, a division of Cablevision Systems Corporation, "is an industry leader in providing advanced Ethernet-based data, Internet, voice, video transport solutions and managed

[44] Frontier 2012 10K at 5.
[45] Integra website, available at http://www.integratelecom.com/about/Pages/default.aspx.
[46] Integra website, available at http://www.integratelecom.com/about/Pages/default.aspx.
[47] Integra website, available at http://www.integratelecom.com/enterprise/products/Pages/internet-services.aspx.
[48] Integra website, available at http://www.integratelecom.com/services/business_connect.php; http://www.integratelecom.com/services/Ethernet_Services.php http://www.integratelecom.com/services/High_Speed_Internet.php.
[49] Level 3 2012 10K, available at http://level3.q4cdn.com/bb7ce2d2-7e59-4e8e-bde0-7a0b6b3e0d17.pdf at 4-8 (Level 3 2012 10K).
[50] Level 3 website, available at http://www.level3.com/en/products-and-services/data-and-internet/rural-access-solutions/tower-access/.
[51] Level 3 2012 10K at 8.
[52] Lightower website, available at http://www.lightower.com/.
[53] Lightower website, available at http://www.lightower.com/.
[54] Lightower website, available at http://www.lightower.com/network-services/.

services to businesses across the New York metropolitan area."[55] Its Metro Ethernet services offer speeds from 10 Mbps to 10 Gbps.[56]

Lumos Networks. Lumos Networks is a fiber-based service provider in the Mid-Atlantic region. Its product offerings include high-speed transport, wavelengths and Metro Ethernet. Its products are supported by approximately 5,800 fiber route miles in Virginia, West Virginia and portions of Pennsylvania, Maryland, Ohio and Kentucky.[57] Lumos "is the first provider in the U.S to earn certification on Carrier Ethernet (CE) 2.0 for E-Access and one of only a few companies to certify for E-LAN services."[58]

Masergy. Masergy Communications "pioneered one of the first global IP/MPLS networks in 2000 that could deliver a pure Ethernet experience to any location worldwide."[59] Its Intelligent Connectivity delivers Ethernet everywhere, "even when native Ethernet is unavailable" "at port speeds of 1.5 MB to Gigabit."[60]

MegaPath. MegaPath "is one of the largest facilities-based providers of managed services in the United States providing voice, data, managed IT and security services to enterprise and SMB customers."[61] Serving over 235 metro markets throughout the U.S., MegaPath offers Internet connectivity via DSL, T1, Bonded T1, high-speed Ethernet, and cable.[62] Its Ethernet services range from 2 Mbps to 20 Mbps symmetrical bandwidth.[63]

NTS. NTS Communications provides integrated voice, data and video solutions in the southwestern U.S., with core markets in Texas, Louisiana and Mississippi.[64] Its service offerings include Ethernet Private Line, MPLS, and Wireless Tower Builds.[65]

NTT America. NTT America is a subsidiary of NTT Communications, the international and long distance arm of Nippon Telegraph and Telephone Corporation, "the top ranked telecommunications company in the world (ranked 32nd in the Fortune Global 500 list of 2013)."[66] It is a "leading provider of end-to-end network & IT solutions for multinational corporations," with a "comprehensive service portfolio inclusive of Managed Network, Global IP Network and Data Services capability[.]"[67]

[55] Lightpath website, available at https://golightpath.com/about-us .
[56] Lightpath website, available at https://golightpath.com/metro-ethernet .
[57] Lumos website, available at http://lumosnetworks.com/content/aboutus.
[58] Lumos website, available at https://www.lumosnetworks.com/business/data/metro-ethernet.
[59] Masergy website, available at http://www.masergy.com/about-us.
[60] Masergy website, available at http://www.masergy.com/sites/default/files/IntelligentConnectivity.pdf.
[61] MegaPath website, available at http://www.megapath.com/about/network/.
[62] MegaPath website, available at http://www.megapath.com/about/network/.
[63] MegaPath website, available at http://www.megapath.com/data/ethernet/.
[64] NTS website, available at http://www.fibertripleplay.com/#!overview/c1cyq .
[65] NTS website, available at http://www.fibertripleplay.com/#!wholesale/cbi7 .
[66] NTT America website, available at http://www.us.ntt.com/en/index.html .
[67] NTT America website, available at http://www.us.ntt.com/en/products-services.html.

Southern Light. Southern Light is "the Gulf Coast's leading provider of fiber optic networks and high-capacity transport solutions."[68] It has over 3,600 route miles of wholly-owned fiber networks. Services offered by Southern Light include Ethernet, wavelength and TDM services with Dedicated Internet Access available in increments of 1 Mbps to 10 Gbps.[69]

Sprint. Sprint offers a comprehensive range of wireless and wireline communications services.[70] Sprint's business services include Global MPSL, Dedicated Internet and Ethernet Access.[71] Ethernet services are delivered over Sprint's "Next Generation Optical network, which uses state-of-the-art optical transport equipment to ensure high availability, lower latency, and overall improved performance."[72] Sprint's Ethernet service is available in 149 U.S. markets and 81 countries.[73]

Suddenlink. Suddenlink Communications offers various business services, including Ethernet, Business Internet, Dedicated Internet and Managed VPN.[74] Suddenlink has invested over a billion dollars to enhance its nationwide network.[75]

TelePacific. TelePacific Communications owns and operates extensive network assets, including 50,000 strand fiber miles with more than 1.2 million lines in service.[76] It is "the largest competitor to AT&T, Verizon and CenturyLink in California" and has "expanded operations into Nevada and Texas, and extended its network reach nationwide and globally to serve mult-location customers all over the world."[77] Among its service offerings, TelePacific provides Ethernet from 1 Mbps to 1 Gbps.[78]

tw telecom. tw telecom services markets nationwide over its own facilities, with more than 27,000 route miles of fiber and more than 16,000 "on-net" commercial buildings.[79] It specializes in "serving data-intensive businesses where connecting and communications is critical," such as education, financial services, government, healthcare, legal services and advanced technology

[68] Southern Light website, available at http://southernlightfiber.com/.
[69] Southern Light website, available at http://southernlightfiber.com/.
[70] Sprint website, available at http://www.sprint.com/about/.
[71] Sprint website, available at http://convergence.sprint.com/networking.aspx.
[72] Sprint website, available at http://convergence.sprint.com/EthernetSolutions.aspx.
[73] Sprint website, available at http://convergence.sprint.com/EthernetSolutions.aspx.
[74] Suddenlink website, available at https://www.suddenlinkbusiness.com/servicesproducts/pages/default.aspx.
[75] Suddenlink website, available at https://www.suddenlinkbusiness.com/servicesproducts/Pages/Ethernet.aspx.
[76] Telepacific website, available at http://www.telepacific.com/about/phone-service-providers.asp.
[77] Telepacific website, available at http://www.telepacific.com/about/phone-service-providers.asp.
[78] Telepacific website, available at http://www.telepacific.com/offer/data-network/ethernet.asp.
[79] tw telecom website, available at http://www.twtelecom.com/about-us/history/.

companies.[80] tw telecom is "one of the three largest providers of Business Ethernet in the nation...."[81] Its Ethernet metro and nationwide services range from 2 Mbps to 10 Gbps.[82] According to tw telecom's CEO, the company has "achieved strong comprehensive financial results while rapidly deploying industry-leading Intelligent Network and advanced Ethernet capabilities."[83]

Time Warner Cable. Time Warner Cable is among the largest providers of video, high-speed data and voice services in the U.S., with 15 million customers in 29 states. Time Warner Cable Business Class "offers data, video and voice services to businesses of all sizes, cell tower backhaul services to wireless carriers, and managed and outsourced information technology solutions and cloud services."[84] Time Warner Cable's Ethernet products include Ethernet Private Line, Ethernet Virtual Private Line and Ethernet Local Area Network, with speeds up to 10 Gbps.[85] It also offers solutions by industry.[86]

Verizon. Verizon is "a global leader delivering innovative communications and technology solutions."[87] Verizon delivers "a broad range of strategic solutions, services and expertise to many of the world's largest organizations, including 99 percent of the Fortune 500."[88] Verizon has a regional presence in wireline and a national presence in wireless markets, with large business and government customers worldwide.[89]

Windstream. Windstream is a leading provider of advanced network communications, including cloud computing and managed services, to businesses nationwide.[90] Windstream has an extensive nationwide network with 115,000 miles of fiber across North America, serving Enterprise customers in 86 top U.S. metro locations.[91] It provides service for approximately 3.3

[80] tw telecom website, available at http://www.twtelecom.com/telecom-solutions/business-communications-services/.
[81] tw telecom website, available at http://www.twtelecom.com/about-us/.
[82] tw telecom website, available at http://www.twtelecom.com/telecom-solutions/voice-solutions/business-ethernet-services/.
[83] *tw telecom Reports Fourth Quarter and Full Year 2012 Results,* (Feb. 11, 2013) (statement by tw telecom Chairman, CEO and President Larissa Herda), tw telecom website, available at http://www.twtelecom.com/investor-guide/financial-reporting/quarterly-earnings/.
[84] Time Warner Cable website, available at http://www.timewarnercable.com/en/about-us/company-overview.html.
[85] Time Warner Cable website, available at http://www.timewarnercable.com/en/business-home/services/network-services/ethernet.html, http://www.timewarnercable.com/en/business-home/services/network-services/ethernet/ethernet-private-line/overview.html.
[86] Time Warner Cable website, available at http://www.timewarnercable.com/en/business-home/solutions/solutions.html.
[87] Verizon website, available at http://about.verizon.com/company.
[88] Verizon website, available at http://about.verizon.com/our-company/products-services/.
[89] Verizon website, available at http://www.verizon.com/investor/corporatehistory.htm.
[90] Windstream website, available at http://www.windstreambusiness.com/company/about-windstream.
[91] Windstream website, available at http://abea-43pvyw.client.shareholder.com/investors/.

million access lines in 23 states.[92] Windstream's Ethernet Internet service offers speeds up to 1 Gbps.[93] It also offers other private line, MPLS and VPN services.[94]

XO. XO Communications "is a leading nationwide provider of advanced communications, managed network and IT infrastructure services for business, large enterprise and wholesale customers."[95] It operates "one of the largest facilities-based networks" with more than one million miles of metro fiber, a 20,000-route nationwide inter-city fiber network, with a global reach to 55 countries.[96] Its network services include MPLS IP-VPN, Private Line, Ethernet and Wavelength services.[97] XO offers "Ethernet services to nearly 10 million business locations nationwide, from busy metropolitan areas to suburban and even rural locations."[98]

Zayo. Zayo Group is a "global provider of bandwidth infrastructure services, including dark fiber, wavelengths, SONET, Ethernet, IP services,"[99] serving 271 markets in seven countries and 45 states, plus Washington D.C. [100] Zayo's network footprint spans 74,300 fiber route miles with 5.59 million miles of fiber.[101] Its Ethernet offering is "a fully managed carrier-class service with bandwidth from 100 Mpbs to 10 Gpbs."[102]

[92] Windstream website, available at http://www.windstream.com/company/coverage.html.
[93] Windstream website, available at http://www.windstreambusiness.com/enterprise/internet-access/ethernet-internet.
[94] Windstream website, available at http://www.windstreambusiness.com/enterprise/data-solutions.
[95] XO website, available at http://www.xo.com/.
[96] XO website available at http://www.xo.com/why/the-right-network/reach/.
[97] XO website available at http://www.xo.com/why/the-right-solutions/.
[98] XO website, available at http://www.xo.com/connect/ethernet/access/.
[99] Zayo Group website, available at http://www.zayo.com/.
[100] Zayo Group website, available at http://www.zayo.com/about-us.
[101] Zayo Group website, available at http://www.zayo.com/services.
[102] Zayo Group website, available at http://www.zayo.com/ethernet.

Attachment 10

Attachment 10

DECLARATION OF KEVIN DOWNS

I. Introduction

1. My name is Kevin Downs. My business address is 931 14th Street, Denver, CO 80202. I am employed as a Director of Business Marketing at CenturyLink. In that capacity, I have analytics and strategic pricing oversight for the business segments of CenturyLink. I have been employed by CenturyLink and its predecessor companies for 13 years, holding positions in various pricing, finance and operations roles.
2. The purpose of my declaration is to discuss the ways in which CLECs are using copper loops purchased as unbundled network elements (UNEs) to provide Ethernet and other enterprise broadband services. Through use of "pair bonding," CLECs can provide broadband speeds and performance that are comparable to those of CenturyLink's enterprise broadband services – at a fraction of the cost of deploying fiber. Integra Telecom and other CLECs are using this strategy with great success to win small, medium and large business customers in CenturyLink's service territory.
3. Over the past several years, CLECs have successfully launched and marketed "Ethernet-Over-Copper" services in numerous areas served by CenturyLink. These areas include large metropolitan statistical areas (MSAs), such as Las Vegas, Phoenix and Seattle, but also "Tier 2" and "Tier 3" cities, such as Boise, ID, Fargo, ND, Medford, OR, and Billings, MT (to name just a few examples).
4. Integra Telecom is one of the most successful providers of these services. Integra uses Ethernet-Over-Copper technology to provide a package of voice, data and Internet services with up to 30 Mbps of symmetrical upstream and downstream bandwidth.

Integra markets this Ethernet service primarily to small and medium businesses as a cost-effective, scalable alternative to the enterprise broadband services provided by ILECs and cable companies. Integra currently delivers Ethernet-Over-Copper service from approximately 120 central offices throughout its eleven-state footprint in the western U.S.

5. Integra and other CLECs typically provide such services by bonding up to eight copper UNE loops purchased from an ILEC such as CenturyLink. Through use of DSL-based technologies, a CLEC is able to provide broadband speeds and performance over the ILEC's existing copper infrastructure that rival those of fiber-based broadband services, without the construction costs required for new fiber optic installation. The CLEC's cost structure is further reduced by the fact that it can purchase the copper loops at TELRIC rates.

6. Integra has used this cost advantage to offer very competitive rates and gain large numbers of business customers in areas served by CenturyLink. On average in Phoenix, Minneapolis, Seattle, Denver and Portland, for example, Integra's revenues for data services provided to "mid-market" customers exceed those of any other provider, including CenturyLink. But these services are not limited to the largest metropolitan areas served by CenturyLink. Integra has also deployed Ethernet-Over-Copper services to smaller metropolitan areas including Idaho Falls, Fargo, ND and Salem, OR.

7. Other CLEC providers of Ethernet-Over-Copper services include EarthLink Business, MegaPath, Paetec and XO.

8. In addition to CLEC providers, cable players are increasingly competing against our traditional Ethernet and Ethernet-Over-Copper products through the deployment of higher speed broadband products. This includes current online offerings that provide 100

Mbps download speeds and 20 Mbps upload speeds for $199.95, a price point that is substantially below our traditional rates for a 20 Mbps Ethernet product. We are finding that this product and other high-bandwidth cable offerings are winning customers in the small and mid-sized business segments that would have considered Ethernet options in the past. Flow-share data we receive from independent third parties suggests that cable players are winning small and mid-sized business customers at a rate three times what we are able to accomplish through our high bandwidth offerings.

/s/ Kevin Downs
Kevin Downs

November 26, 2013

Attachment 11

Attachment 11

DETAILED DISCUSSION OF ENTERPRISE BROADBAND SERVICES MARKET

CLEC Use of Copper Loops (see Petition at 29-30)

According to Frost & Sullivan, Ethernet over Copper services "continue to expand Ethernet availability," particularly given "the ubiquitous availability of copper infrastructure in the U.S. market."[1] For instance, Integra Telecom announced last year that it was offering "60 megabit-per-second (Mbps) Ethernet over Copper (EoC) symmetrical access throughout its network footprint."[2] As Integra states, an EoC architecture permits use of "[s]ervices such as IP/MPLS VPN Solutions, Ethernet Services, high bandwidth internet, SIP Solutions and Hosted Voice Services . . . , allowing businesses to prioritize and easily manage complex network traffic while ensuring Class of Service and Quality of Service, even at peak traffic loads."[3] Integra markets this Ethernet service primarily to small and medium businesses as a cost-effective, scalable alternative to the enterprise broadband services provided by ILECs and cable

[1] *Frost U.S. Data Transport Update* at 38. *See also Insight Ethernet Report* at 63 (noting that, below the 50 MB/DS3 level, copper-based solutions are well on their way to overcoming "the perception that high-speed Ethernet transmission effectively required direct in-building fiber connectivity.")

[2] Press Release, Integra Telecom, *Integra Boosts Network Bandwidth with Symmetrical 60-Mbps Ethernet Over Copper Access* (Nov. 6, 2012), *available at* http://www.integratelecom.com/about/news/Pages/Integra-Boosts-Network-Bandwidth-with-Symmetrical-60-Mbps-Ethernet-Over-Copper-Access.aspx.

[3] *Id.* Integra announced earlier this year that it "has experienced unprecedented growth within its Integra Wholesale division, through an enhanced Ethernet product portfolio, expanded fiber network and improved sales tools and resources for partners." Press Release, Integra Telecom, *Integra Wholesale Experiences Record Growth*, (Mar. 11, 2013), *available at* http://www.integratelecom.com/about/news/Pages/Integra-Wholesale-Experiences-Record-Growth.aspx. *See also* Integra Telecom, Business Connect Bundle, http://www.integratelecom.com/resources/Assets/business-connect-pb-integra.pdf (last visited Nov. 15, 2013); Downs Declaration ¶ 4; Integra Telecom, IP/MPLS/VPN for Enterprise, http://www.integratelecom.com/enterprise/products/Pages/vpn-services.aspx (last visited Nov. 15, 2013).

companies.[4] Integra has leveraged the cost advantage derived from using ILEC copper loops to gain large numbers of business customers in areas served by CenturyLink and become a leading provider of data services to "mid-market" customers in Phoenix, Minneapolis, Seattle, Denver and Portland, as well as smaller urban markets.[5]

Other CLEC providers of EoC services include EarthLink Business, MegaPath, Paetec and XO.[6] In October 2012, MegaPath announced the completion of its national EoC rollout to nearly 700 central offices in the top 50 national markets and stated that it has the largest Ethernet-over-copper footprint in the country.[7] Through this deployment, MegaPath can reach "millions of businesses with symmetrical speeds up to 45 Mbps."[8]

EoC offers speeds ranging from 3 to 50 Mbps in many areas today.[9] Incumbent LECs

[4] Downs Declaration ¶ 4.

[5] *Id.* ¶ 6.

[6] *See id.* ¶ 7; EarthLink, EarthLink Complete Data: MPLS Over Ethernet (2011), http://www.earthlinkbusiness.com/_static/_files/_pdfs/EC-MPLS-over-Ethernet.pdf (last visited Nov. 13, 2013); MegaPath, Business Ethernet Benefits, http://www.megapath.com/data/ethernet/benefits/ (last visited Nov. 15, 2013); XO Connect: Ethernet Services, http://www.xo.com/SiteCollectionDocuments/business-services/data-and-internet-services/ethernet-solutions/Ethernet_PS.pdf (last visited Nov. 15, 2013).

[7] Press Release, MegaPath, MegaPath Completes National Ethernet over Copper Rollout, Adding to the Largest EoC Footprint in the United States (Oct. 3, 2012) ("MegaPath now offers EoC on its network in top 50 major markets nationwide . . . ."), *available at* http://www.megapath.com/about/press-releases/megapath-completes-national-ethernet-over-copper-rollout-adding-to-the-largest-eoc-footprint-in-the-united-states/.

[8] *Id.* In May 2012, Cbeyond stated that it provided "21 percent of its customers with Metro Ethernet via Ethernet-over-Copper technology." Cbeyond FiberLight Press Release.

[9] *See* Letter from Joshua M. Bobeck, *et al.*, Counsel to Mpower Communications Corp., U.S. TelePacific Corp., ACN Communications Services, Inc., Level 3 Communications, LLC, TDS Metrocom, LLC, and Telecommunications for the Deaf and Hard of Hearing, Inc., to Marlene H.

are required to make these loops available at TELRIC rates in virtually all their wire centers,[10] rendering EoC an economical means of obtaining high-capacity carriage. According to an ex parte filing submitted earlier this year by several competitive LECs, "the unbundling regime gives competitors the ability to enter less concentrated markets and prove the business case that eventually may lead to deploying their own last mile facilities."[11]

Given its low cost, it is not surprising that many competitors have used Ethernet over copper to serve enterprise customers. "[A] TelePacific survey of nine CLECs in California shows that they have installed EoC capability in 343 California wire centers, giving the majority of small and medium sized businesses served by those wire centers the ability to purchase EoC based broadband service today," whereas a similar study found that "six CLECs provide EoC broadband options to more than 400,000 business customers in 130 wire centers in Texas."[12]

Dortch, FCC, WC Docket Nos. 10-188, 12-353, GN Docket Nos. 09-51, 13-5, RM-11358, at 5-6 (filed Jan. 25, 2013) ("CLEC EoC Ex Parte").

[10] While the Commission has forborne from applying the copper loop unbundling mandate in a small handful of MSAs, its rules mandate that copper loops be made available for unbundling in all other areas. *See* 47 C.F.R. § 51.319(a)(1); *Petition of ACS of Anchorage, Inc. Pursuant to Section 10 of the Communications Act of 1934, as Amended, for Forbearance from Sections 251(c)(3) and 252(d)(1) in the Anchorage Study Area*, Memorandum Opinion and Order, 22 FCC Rcd 1958 (2007); *Qwest Omaha Forbearance Order*, 20 FCC Rcd 19415.

[11] CLEC EoC Ex Parte at 6-7.

[12] *Id.* at 4. *See also id.* at 6 ("competitive EoC in California is available not only in urban business districts, but also in areas of the state where there are fewer concentrations of potential customers[.]" According to Frost & Sullivan, "40 percent of current users indicat[e] they use EoC access services." Frost & Sullivan, *2012 Business Network Connectivity End-User Survey: Adoption Trends for Carrier Ethernet Services*, at 5 (Aug. 2012), appended as Attachment 16 to the Petition.

XO pitches its EoC offering as "an easy, affordable, and immediate solution for providing feature-rich, high-speed access and services."[13] XO further emphasizes the benefits of its reliance on unbundled loops: "Thanks to legacy voice and the widespread deployment of DSL, twisted-pair copper is relatively ubiquitous throughout the first mile. Consequently, [EoC] is ideal as a deployment topology for residential neighborhoods and office complexes."[14] Last year, XO announced the addition of 100 Mbps EoC services to "nearly two million business locations."[15]

Numerous other competitive providers are leveraging EoC as well. In October 2012, Windstream announced that it was expanding its Carrier Switched Ethernet product to more than 300 new markets in which it is a competitive LEC, offering "interconnect ports of 100 Mbps, 1 Gbps, and 10 Gbps" and "end user loops from 3 Mbps to 1 Gbps" over technologies including EoC.[16] Granite Telecom offers EoC at 20 Mbps, 50 Mbps and 100 Mbps, citing "[s]ignificant cost savings over DS-3 and older network technologies."[17]

[13] XO Communications, *Choosing the Right Ethernet Solution for Your WAN*, at 12 (2012), *available at* http://www.xo.com/SiteCollectionDocuments/Whitepapers/right-ethernet-solution.pdf.

[14] *Id.*

[15] Press Release, XO Communications, *XO Communications Extends its Ethernet Services Leadership with New Speeds and Expanded Nationwide Coverage* (Nov. 7, 2012), *available at* http://www.xo.com/about/news/Pages/546.aspx.

[16] Press Release, Windstream, *Windstream announces Carrier Switched Ethernet expansion* (Oct. 8, 2012), *available at* http://news.windstream.com/article_display.cfm?article_id=1419. *See also* Press Release, Windstream, *Windstream announces nationwide Carrier Switched Ethernet expansion* (Mar. 11, 2013) (announcing a nationwide expansion of its Carrier Switched Ethernet service), *available at* http://news.windstream.com/article_display.cfm?article_id=1462.

[17] *See* Granite, http://www.granitenet.com/ (select "Data Services" hyperlink , then select "High Capacity" hyperlink) (last visited Nov. 12, 2013).

The Ethernet Market and Other Enterprise Broadband Providers (see Petition at 32)

Ethernet services "continue to gain acceptance as the preferred choice for the bandwidth needs of enterprises."[18] Legacy services, such as ATM and Frame Relay, "have seen rapid decline," as demand shifts "to more cost-effective, scalable and higher bandwidth technologies, such as Ethernet and MPLS (private IP)."[19] Ethernet "is well suited for bandwidth intensive applications, such as Voice over IP, Video, storage/disaster recovery, and data center consolidation."[20]

In 2011, "'[h]igh speed service availability and decreased pricing were major market drivers.'"[21] This continued in 2012, as Ethernet providers engaged in major backbone upgrades, new market rollouts, and intense price competition.[22] During its forecast period (2011-16), IDC

[18] Frost & Sullivan, *Performance Management Matters to Carrier Ethernet Providers*, at 6 (Dec. 2012), appended as Attachment 17 to the Petition.

[19] *Frost U.S. Data Transport Update* at 6. "Demand for T1/DS1 service from wholesale customers has begun to show the effects of migration to more scalable, flexible-speed Ethernet services (*e.g.*, EPL, EVPL, Ethernet over Wave and EoCu.)" *Id.* at 19.

[20] Nav Chandler, IDC, *Market Analysis Perspective: U.S. Carrier Ethernet and IP VPN Network Services, 2012*, at 10 (Dec. 2012) ("*IDC Market Analysis Perspective*"), appended as Attachment 18 to the Petition.

[21] Press Release, Vertical Systems Group, Vertical Systems Group: 2011 U.S. Business Ethernet Leaderboard (Feb. 13, 2012) (quoting Rick Malone, principal at Vertical Systems Group), *available at* http://www.verticalsystems.com/prarticles/stat-flash-02-2012-Year-End%202011_Leaderboard_prnews.html.

[22] Press Release, Vertical Systems Group, Vertical Systems Group: 2012 U.S. Business Ethernet Leaderboard (Jan. 29, 2013) ("VSG 2012 Ethernet Leaderboard"), *available at* http://www.verticalsystems.com/vsglb/2012-us-business-ethernet-leaderboard/.

predicted that demand for Ethernet services will drive revenue growth into double digits.[23] And such growth is likely to accelerate, with cloud service providers "increasingly looking to Ethernet to build their cloud networks . . . to serve customers that demand a high level of security, end-to-end . . . ."[24] "Competition in [this] strategic services market continues to be fierce."[25] By 2015, the Carrier Ethernet services market is expected to grow to about $48 billion annually.[26]

In recent years, dozens of competitive fiber providers have capitalized on burgeoning bandwidth needs by providing carrier- and enterprise-grade Ethernet services over their ever-more-ubiquitous long-haul and metropolitan networks. CLECs such as tw telecom boast to investors about their "big, beautiful, and powerful fiber network[s],"[27] as the cost of deploying

[23] *See IDC Market Analysis Perspective* at 7 ("Demand for Ethernet connectivity will drive double digit revenue growth rates over the forecast period."); Michael Kennedy, *Medium-sized businesses buy in to Carrier Ethernet services*, FierceTelecom (Nov. 12, 2012), *available at* http://www.fiercetelecom.com/story/medium-sized-businesses-buy-carrier-ethernet-services/2012-11-12 ("Medium businesses will be moving to Carrier Ethernet services over the next several years and are likely to sustain above-average revenue growth of 15 percent per year."). *See also Frost Wholesale Carrier Ethernet Analysis* at 26 ("Revenue growth continues to exceed our forecasts, due to the faster than expected rate of market migration from traditional services to Ethernet.").

[24] *Frost Wholesale Carrier Ethernet Analysis* at 19. *See also Insight Ethernet Report* at 83 ("Cloud computing applications are projected to become a massive new emerging Ethernet market influence and growth source").

[25] *Frost U.S. Data Transport Update* at 49.

[26] *See* Press Release, MetroEthernet Forum, *Carrier Ethernet 2.0 pioneers pave way for Ethernet access surge* (Jan. 29, 2013), *available at* http://metroethernetforum.org/Assets/Press_Releases/CE-2.0-Cert-PR-FINAL.docx.

[27] Transcript of tw telecom, Inc. Fourth Quarter 2012 Earnings Call, at 7 (Feb. 12, 2013) (Larissa L. Herda), appended as Attachment 19 to the Petition.

new fiber "continues to fall."[28] tw telecom offers service "across the United States to thousands of enterprise customers and buildings through a single Ethernet connection scalable to 10 Gig."[29] Its network reaches more than 18,000 on-net buildings with ubiquitous Ethernet service "across 75 markets" and more than 2,300 connected Local Serving Offices.[30] The company recently reported its 45th consecutive quarter of enterprise service growth,[31] with 18.4% year-over-year growth in Ethernet and VPN products from the third quarter of 2012 to the third quarter of 2013.[32] tw telecom "focus[es] on the medium and large enterprise," serving "about 40% of the Fortune 1000 in some form or fashion."[33]

XO provides a full suite of wholesale and retail enterprise services, including point-to-point private line, hub service, Ethernet (offering "bandwidth options ranging from 3Mbps to 100G"), and "Wavelength" wireless connectivity.[34] In August 2012, XO announced that it had

[28] Joshua Wilshusen, *Deploying Tomorrow's Fiber Networks Today*, Intergraph Connect (Jan. 15, 2013), *available at* http://www.intergraphblogs.com/connect/2013/01/deploying-tomorrows-fiber-networks-today/.

[29] Press Release, tw telecom, *tw telecom Launches Ubiquitous Availability of National Ethernet Solutions for Carriers* (Dec. 17, 2012), *available at* http://newsroom.twtelecom.com/2012-12-17-tw-telecom-Launches-Ubiquitous-Availability-of-National-Ethernet-Solution-for-Carriers.

[30] *See* tw telecom, *Wholesale Ethernet: Why tw telecom?* http://www.twtelecom.com/telecom-solutions/wholesale/why-tw-telecom/ (last visited Nov. 15, 2013).

[31] Investor Presentation, tw telecom, at 28 (Nov. 2013), *available at* http://www.twtelecom.com/investor-guide/investor-presentations/ (*TWT Investor Presentation*).

[32] *Id.*

[33] Corrected Transcript of tw Telecom, Inc., UBS Global Media and Communications Conference, at 9-10 (Dec. 4, 2012) (Michael A. Roleau, Senior VP-Business Development & Strategy, TW Telecom, Inc.), appended as Attachment 20 to the Petition.

[34] XO Communications, *Network Transport Overview*, http://www.xo.com/services/carrier/transport/Pages/overview.aspx. (last visited Nov. 15, 2013);